

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

1.9
F 76 2220c
cop 3
National Paper No. 6

June 15, 1944

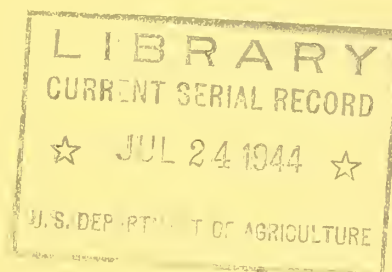
WOOD PRODUCTION TRENDS

NORTHEASTERN STATES

1943

by

G. Luther Schnur
Forester



ALLEGHENY FOREST EXPERIMENT STATION

UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE

ALLEGHENY FOREST EXPERIMENT STATION

In cooperation with the University of Pennsylvania
614 Bankers Securities Building
Philadelphia 7, Pennsylvania

Hardy L. Shirley, Director

This paper was prepared by the
Allegheny Forest Experiment Station
from data obtained in cooperation with
Bureau of the Census
and
Statistics Division, War Production Board

CONTENTS

	Page
Introduction	1
Lumber production trends	1
Production by species	2
Production by mill classes	2
Tables and figures	
Table 1 Monthly lumber production northeastern states - 1943	4
Figure 1 Monthly trend of lumber production in the United States and the Northeast - 1943	5
Figure 2 Monthly trend of lumber production in the Northeastern States - 1943	6
Table 2 Monthly lumber production by species - 1943	7
Table 3 Monthly production of softwoods and hardwoods by states - 1943	8
Table 4 Monthly lumber production by mill classes - 1943	10
Figure 3 Monthly lumber production trends by mill classes - 1943	11
Table 5 Number of sawmills	12
Table 6 Comparison of number of mills and lumber production by mill classes	13
Figures 4 to 14 Location of sawmills by states	14

LUMBER PRODUCTION TRENDS IN THE NORTHEASTERN STATES

FOR 1943

Lumber became a critical war material very soon after our country entered the conflict. Huge quantities were required to convert our industries to war production, to build new factories, to fit up ship yards, to house workers for these new industries, and to provide barracks for soldiers. By 1943 these demands had declined but the need for shipping containers and dunnage had increased until they required half of the total lumber output.

Heavy inroads on stocks at mills and in yards as well as declining sawmill production pointed to the need for drastic action early in 1942. Conservation orders, priorities, and price controls were invoked. To administer these so as to promote the most effective functioning of our wartime economy required accurate current statistics on lumber production and available stocks. During the latter part of 1942 the Forest Service, in cooperation with the Statistics Division of the War Production Board, started making monthly lumber production surveys throughout the United States. The Allegheny Forest Experiment Station has conducted these surveys in the eleven northeastern states from Maine to Maryland.

Lumber Production Trends

Monthly lumber production figures by states for the Northeast are presented in Table 1. Figure 1 shows the monthly trend of production for the United States and for the northeastern region. The peak of production for the country as a whole was during the summer months with the maximum of 3,232,544,000 board feet in the month of August. In the Northeast, production rose to a maximum of 177,468,000 board feet in June, dropping off immediately thereafter.

Trends of lumber production for individual states are shown in Figure 2. Among the heavy producing states, Maine, New Hampshire, New York, and Maryland show production peaks in June, while the peak in Pennsylvania is in September. This difference is due probably to the type of logging, which ties in also with weather factors. In northern New England and New York winter logging from camps is used extensively. This tends to throw the peak of production in the early summer. In Pennsylvania, as a rule, the heaviest logging is done during the good weather of late summer and early fall. A summer slump is noted in many states. This is due mainly to seasonal workers returning to the farm during haying and harvesting time. The low point in production occurs in winter and is due mainly to bad weather, which interferes with log cutting and transportation. Winter brings also the hunting season, holidays, and increased illness, all of which make dents in production curves.

Production By Species

Monthly lumber production by species is given in Table 2. Some 90 percent of the total production in the Northeast in 1943 was made up of nine species as follows:

<u>Species</u>	<u>M bd. ft.</u>	<u>Percent of Total</u>
White pine	727,669	41.0
Hemlock	186,686	10.5
Red oak	180,203	10.2
White oak	110,222	6.2
Spruce	96,068	5.4
Hard maple	94,324	5.3
Southern yellow pine	84,129	4.7
Birch	68,287	3.8
Beech	62,174	3.5
Total	1,609,762	90.6
Grand total	1,775,208	100.0

Monthly production of softwoods and hardwoods by states is shown in Table 3.

Production By Mill Classes

Lumber production by mills of various production size classes is shown in Table 4, and monthly trends for the five classes are shown in Figure 3. This chart brings out several interesting things. The twenty-two mill operations cutting more than five million board feet per year show very little monthly change in production. There is a slight production peak during the summer months, but by and large these mills produced a total of about ten million feet per month during 1943. This class is made up of both large individual band-saw mills and closely knit groups of smaller circular-saw mills operated under one management. The latter simulates the former in production attainment where labor is shifted from mill to mill or to woods crew to make an efficient unit. Where groups of small mills are operated as isolated units even though under one management they have been classified as individual smaller units.

The 1-5 million class of sawmills shows a big drop in lumber production during the winter months. Bad weather, no log storage, and labor shortages probably all contribute to this drop. Late winter shows an increase in production followed by a drop during the spring thaw, "mud time" in the north, or rainy weather farther south. The class cutting between one-half and one million board feet of lumber follows much the same seasonal trend as the 1-5 million class. Mills cutting less than half a million board feet of lumber per year in general are not full time operations. This group of mills shows a big slump in production during the summer months, which is probably caused by farming or by the closing

of farmer-owned mills during the summer. A secondary production peak occurs in this class in the fall, followed by the winter slump. Mills cutting under 50,000 board feet per year are mostly farmer-owned mills which do a little custom sawing for a few days each year.

Table 5 shows the number of sawmills in each state by mill size classes. In New England this classification is based upon 1943 figures obtained in cooperation with the Timber Production War Project but in the other states 1942 figures were used. These do not check exactly with published census figures because in a number of cases mills under single management are grouped, as mentioned above. About 18 percent of the mills in the Northeast are idle.

Comparison of lumber production and number of mills by production classes, as shown in Table 6, brings out some interesting facts. The small farmer-owned mills which cut less than 50,000 board feet per year make up almost one-third of the entire number of mills in the Northeast but produce only 1.4 percent of the lumber volume. This class is relatively unimportant as far as lumber production is concerned. However, with the present tight lumber situation, these mills are the salvation of many farmers who need small quantities of rough lumber for repairs and minor construction. The next class, cutting between 50,000 and half a million board feet per year, makes up 45 percent of the total number of mills and produces a quarter of the total lumber cut in the region. As mentioned above, many of these mills are not operated on a full time basis. This group could double or triple its output if sufficient labor were available for both farms and sawmills. The mills which cut between half a million and 5 million feet per year cut the bulk of the lumber in the Northeast, 68 percent of the total volume. This group makes up 25 percent of the number of mills. Many of these mills could step up production as much as 25 percent if sufficient labor were available. The large mills cutting more than 5 million feet per year make up 0.4 percent of the total number and cut 6.8 percent of the volume. Most of these mills are now cutting at their maximum rate.

Sawmill locations by states are shown in Figures 4 to 14. Though these are approximate locations and many small mills are constantly moving, the maps do show the concentration of sawmills in certain areas as well as the lack of mills in other areas. For instance, heavy concentrations of sawmills occur in southwestern Maine, southern New Hampshire, southeastern Vermont, Warren County in New York, south central Pennsylvania, and southern Delaware. Also, there is a lack of mills in the pulpwood producing areas of northwestern Maine and northern New Hampshire, the park areas in the central Adirondack region of New York, and the pulpwood and chemical wood areas in north central Pennsylvania, as well as in numerous farm areas. Direct area comparisons between states are not too easily made, however, because of the variations in scale between the several state maps.

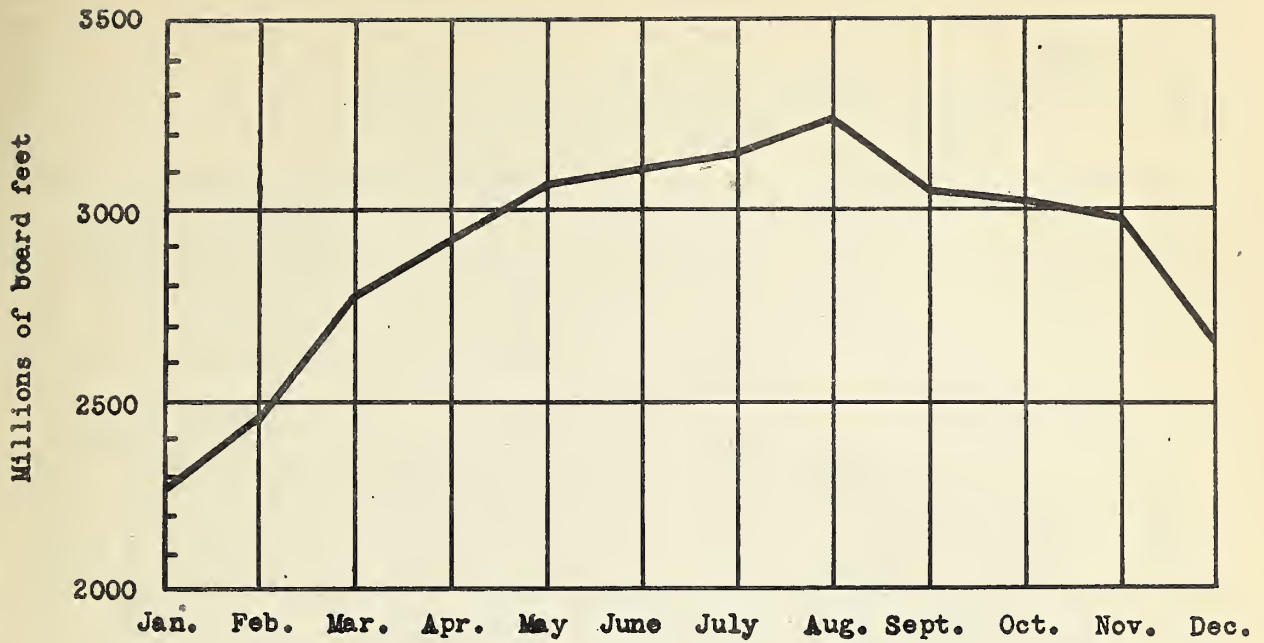
Table 1. Monthly Lumber Production Northeastern States - 1943

State	Month												Total**
	Jan.	Feb.	March	April	May	June M board feet	July	Aug.	Sept.	Oct.	Nov.	Dec.	
Conn.	1,392	1,687	1,708	1,842	1,984	1,496	1,069	1,238	1,320	1,266	1,333	1,195	17,530
Maine	23,221	30,534	36,180	34,528	37,105	38,916	32,620	31,446	26,454	24,293	17,595	19,350	352,242
Mass.	5,974	5,760	8,475	8,846	8,247	7,596	6,371	7,083	7,565	7,194	7,417	6,646	87,174
N. H.	21,663	29,768	29,143	29,842	30,533	31,504	24,129	28,113	27,124	24,667	19,077	22,920	318,483
R. I.	208	111	191	125	143	239	381	275	254	291	261	451	2,930
Vermont	13,634	11,414	14,854	13,189	15,113	14,569	13,938	12,382	12,219	14,277	9,817	11,794	157,200
Total New England	66,092	79,274	90,551	88,372	93,125	94,320	78,508	80,537	74,936	71,988	55,500	62,356	935,559
Delaware	1,961	2,465	2,912	3,292	2,144	2,171	1,777	2,033	1,367	1,650	1,467	1,855	25,094
Maryland	7,792	8,069	9,256	9,597	11,373	12,388	9,948	10,513	8,589	9,816	10,856	11,518	119,715
New Jersey	1,885	1,377	1,638	1,482	1,491	1,736	2,319	2,490	2,294	2,193	1,980	1,975	22,860
New York	13,760	11,718	17,475	19,082	22,773	24,389	22,987	19,292	20,745	18,621	16,175	16,166	223,183
Pennsylvania	29,618	30,523	38,143	31,898	43,539	42,464	43,507	46,565	49,131	42,718	36,960	34,858	469,924
Total Middle Atlantic	55,016	54,152	69,424	65,351	81,320	83,148	80,538	80,893	82,126	74,998	67,438	66,372	860,776
Northeastern states	121,108	133,426	159,975	153,723	174,445	177,468	159,046	161,430	157,062	146,986	122,938	128,728	1,796,335
OPA North-eastern Region*	119,415	131,569	158,190	151,759	173,040	175,128	157,363	159,370	155,071	145,258	121,447	127,598	1,775,208

* Does not include the four western Maryland counties.

** Total production figures subject to revision when census figures become available.

UNITED STATES



NORTHEASTERN REGION (Maine to Maryland)

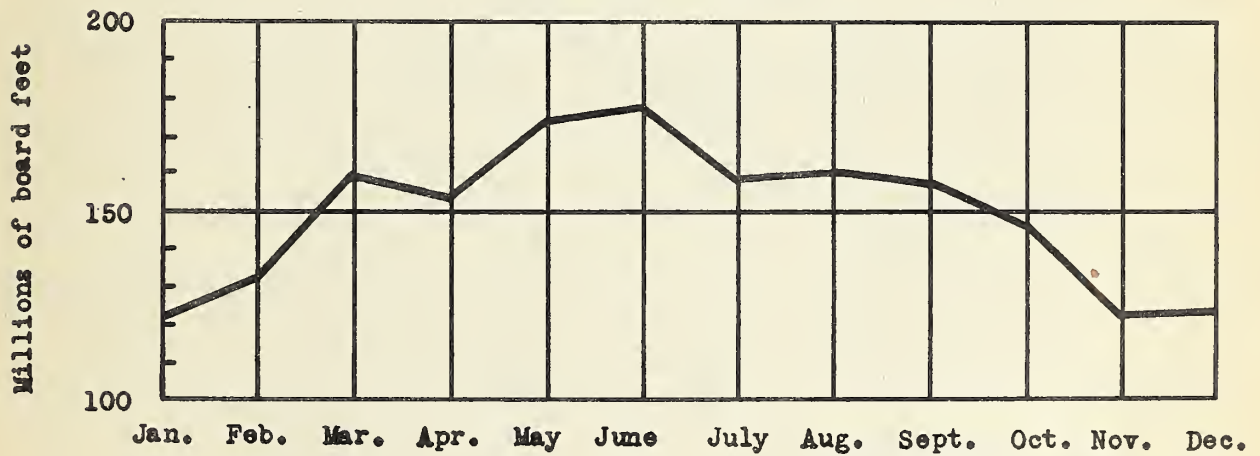


Figure 1. Monthly trend of lumber production in the United States and the Northeast - 1943

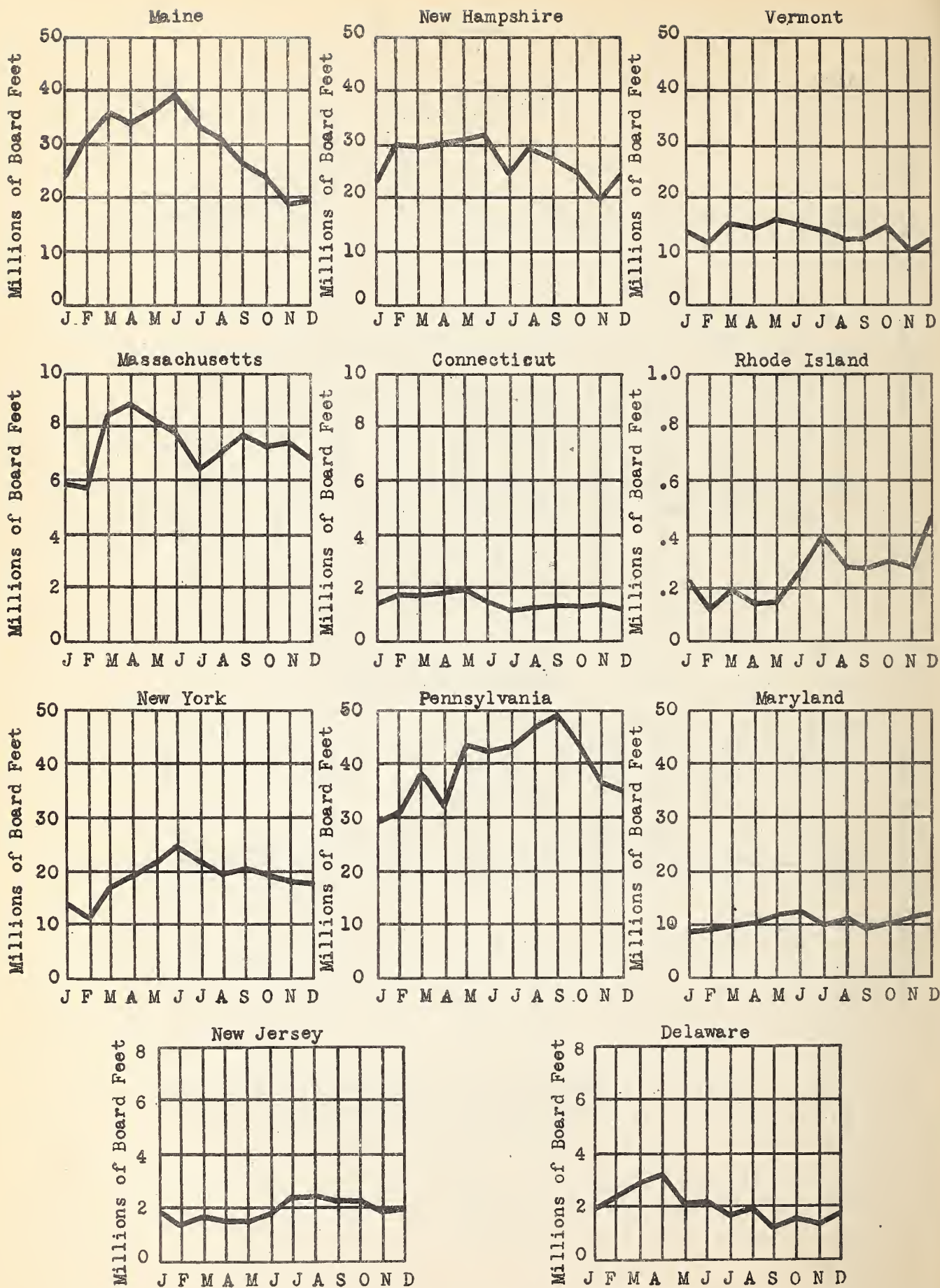


Figure 2. Monthly Trend of Lumber Production in the Northeastern States - 1943

Table 2. Monthly Lumber Production Northeastern Region by Species *
1943

Species	Jan.	Feb.	March	April	May	Production by months					Nov.	Dec.	Total	
						June	July	Aug.	Sept.	Oct.				
						M board feet								
Softwoods														
Cypress					346	1,226	143	59	29		118	28		1,94
Hemlock	13,136	14,341	14,237	15,176	17,131	16,112	17,237	17,303	17,641	16,079	15,729	12,564		186,68
White pine	53,617	60,917	72,768	75,880	74,407	77,056	59,286	59,090	56,031	53,399	39,470	45,748		727,66
S. Yel.pine	7,762	8,420	12,022	10,320	10,036	6,480	5,029	4,678	2,435	2,814	6,376	7,757		84,12
Other pine				151	3,461	1,226	2,363	1,810	3,643	2,911	2,075	1,657		19,29
Spruce	7,165	8,289	9,492	5,767	6,230	7,881	13,460	10,247	7,953	8,196	6,357	5,031		96,06
Other sftwds.	955	1,184	158	151	346	175	695	1,372	1,330	301	305	404		7,37
Total sftwds.	82,635	93,151	108,677	107,445	111,957	110,156	98,213	94,559	89,062	83,700	70,430	73,189		1,123,17
Hardwoods														
Ash	478	395	791	2,732	2,250	1,751	1,883	1,701	2,052	1,732	1,967	2,451		20,18
Basswood	478	526	1,266	1,366	1,211	1,751	1,512	1,312	1,393	1,306	1,254	1,040		14,41
Beech	3,463	3,552	5,853	3,490	5,883	7,005	5,594	5,906	6,048	5,710	4,756	4,914		62,17
Birch	4,299	4,605	10,915	5,615	5,884	7,880	4,487	4,987	5,088	5,314	4,766	4,447		68,28
Cherry			791	304	1,730	1,226	1,336	1,416	1,426	1,024	1,365	1,062		11,68
Elm	477	395	316	456	865	525	603	368	447	607	541	464		6,06
Black gum	98	75	158	151	173	175	946	414	295	75	100	434		3,09
Red gum	260	320	158	304	865	876	100	598	269	592	728	293		5,36
Hickory	239	263	475	1,518	865	175	217	512	969	538	444	841		7,05
Hard maple	5,851	6,052	7,751	5,008	7,441	9,107	10,021	9,836	9,539	8,631	7,131	7,956		94,32
Soft maple	1,314	1,447	1,424	1,518	2,077	3,678	2,556	2,323	2,718	2,243	2,161	1,972		25,43
Red oak	10,747	11,446	12,972	13,962	17,650	17,163	15,992	16,881	16,573	17,358	14,420	15,039		180,20
White oak	6,329	6,578	5,220	5,767	10,209	8,056	10,765	13,986	13,949	10,882	8,370	10,111		110,22
Yellow poplar	1,314	1,316	1,107	1,669	2,077	3,327	2,139	2,548	3,273	2,930	1,400	1,722		24,82
Other hdwds.	1,433	1,448	316	454	1,903	2,277	999	2,023	1,970	2,616	1,614	1,663		18,71
Total hdwds.	36,780	38,418	49,513	44,314	61,083	64,972	59,150	64,811	66,009	61,558	51,017	54,409		652,02
TOTAL	119,415	131,569	158,190	151,759	173,040	175,128	157,363	159,370	155,071	145,258	121,447	127,598		1,775,20

* Does not include the four western Maryland counties.

Table 3. Monthly Production of Softwoods and Hardwoods.
Northeastern Region by States - 1943

State, Month	Soft- woods	Hard- woods	Total	State, Month	Soft- woods	Hard- woods	Total
M board feet				M board feet			
<u>Connecticut</u>				<u>Maine</u>			
January	429	963	1,392	January	23,092	129	23,221
February	520	1,167	1,687	February	29,801	733	30,534
March	458	1,250	1,708	March	34,638	1,542	36,180
April	834	1,008	1,842	April	31,924	2,604	34,528
May	861	1,123	1,984	May	34,401	2,704	37,105
June	910	586	1,496	June	36,037	2,879	38,916
July	307	762	1,069	July	31,424	1,196	32,620
August	356	882	1,238	August	29,968	1,478	31,446
September	440	880	1,320	September	25,093	1,361	26,454
October	684	582	1,266	October	22,552	1,741	24,293
November	723	610	1,333	November	16,112	1,483	17,595
December	642	553	1,195	December	17,817	1,533	19,350
Total	7,164	10,366	17,530	Total	332,859	19,383	352,242
<u>Massachusetts</u>				<u>New Hampshire</u>			
January	5,737	237	5,974	January	20,871	792	21,663
February	5,426	334	5,760	February	28,130	1,638	29,768
March	8,068	407	8,475	March	24,976	4,167	29,143
April	8,775	71	8,846	April	29,023	819	29,842
May	7,960	287	8,247	May	28,887	1,646	30,533
June	5,644	1,952	7,596	June	28,449	3,055	31,504
July	5,180	1,191	6,371	July	22,012	2,117	24,129
August	5,636	1,447	7,083	August	25,548	2,565	28,113
September	5,511	2,054	7,565	September	23,984	3,140	27,124
October	4,907	2,287	7,194	October	22,071	2,596	24,667
November	5,258	2,159	7,417	November	17,702	1,375	19,077
December	4,779	1,867	6,646	December	20,559	2,361	22,920
Total	72,881	14,293	87,174	Total	292,212	26,271	318,483
<u>Rhode Island</u>				<u>Vermont</u>			
January	64	144	208	January	10,913	2,721	13,634
February	77	34	111	February	8,925	2,489	11,414
March	160	31	191	March	10,755	4,099	14,854
April	68	57	125	April	11,126	2,063	13,189
May	87	56	143	May	9,251	5,862	15,113
June	41	198	239	June	10,679	3,890	14,569
July	257	124	381	July	10,161	3,777	13,938
August	199	76	275	August	8,732	3,650	12,382
September	158	96	254	September	8,529	3,690	12,219
October	177	114	291	October	10,315	3,962	14,277
November	50	211	261	November	7,103	2,714	9,817
December	48	403	451	December	8,103	3,691	11,794
Total	1,386	1,544	2,930	Total	114,592	42,608	157,200

Table 3, continued

State, Month	Soft- woods	Hard- woods	Total	State, Month	Soft- woods	Hard- woods	Total
M board feet				M board feet			
<u>Delaware</u>				<u>Maryland</u>			
January	1,812	149	1,961	January	3,619	4,173	7,792
February	2,278	187	2,465	February	3,551	4,518	8,069
March	2,679	233	2,912	March	6,090	3,166	9,256
April	3,006	286	3,292	April	4,913	4,684	9,597
May	1,769	375	2,144	May	6,672	4,701	11,373
June	1,861	310	2,171	June	5,658	6,730	12,388
July	1,637	140	1,777	July	4,878	5,070	9,948
August	1,714	319	2,033	August	4,211	6,302	10,513
September	1,139	228	1,367	September	2,857	5,732	8,589
October	913	737	1,650	October	4,288	5,528	9,816
November	1,156	311	1,467	November	5,889	4,967	10,856
December	1,290	565	1,855	December	6,723	4,795	11,518
Total	21,254	3,840	25,094	Total	59,349	60,366	119,715
<u>New Jersey</u>				<u>New York</u>			
January	351	1,534	1,885	January	7,010	6,750	13,760
February	256	1,121	1,377	February	5,754	5,964	11,718
March	182	1,456	1,638	March	8,755	8,720	17,475
April	234	1,248	1,482	April	9,476	9,606	19,082
May	355	1,136	1,491	May	12,710	10,063	22,773
June	285	1,451	1,736	June	11,463	12,926	24,389
July	430	1,889	2,319	July	12,507	10,480	22,987
August	410	2,080	2,490	August	9,652	9,640	19,292
September	321	1,973	2,294	September	11,319	9,426	20,745
October	314	1,879	2,193	October	10,071	8,550	18,621
November	290	1,690	1,980	November	6,997	9,178	16,175
December	382	1,593	1,975	December	7,151	9,015	16,166
Total	3,810	19,050	22,860	Total	112,865	110,318	223,183
<u>Pennsylvania</u>							
January	8,840	20,778	29,618				
February	8,546	21,977	30,523				
March	12,025	26,118	38,143				
April	8,186	23,712	31,898				
May	9,105	34,434	43,539				
June	9,300	33,164	42,464				
July	9,420	34,087	43,507				
August	8,230	38,335	46,565				
September	9,736	39,395	49,131				
October	7,472	35,246	42,718				
November	9,193	27,767	36,960				
December	5,732	29,126	34,858				
Total	105,785	364,139	469,924				

Table 4. Monthly Lumber Production Northeastern Region-1943

By Mill Classes

Month	Mill size class					Total
	1-49M	50-499M	500-999M	1000-4999M	5000M up	
	M board feet					
January	1,603	27,086	24,804	57,534	8,388	119,415
February	1,601	27,797	26,546	65,952	9,673	131,569
March	2,043	32,313	34,264	79,477	10,093	158,190
April	1,963	36,815	30,171	73,474	9,336	151,759
May	2,588	45,234	39,393	75,938	9,887	173,040
June	2,374	40,270	38,593	81,928	11,963	175,128
July	2,303	34,867	35,356	72,513	12,324	157,363
August	2,274	33,904	37,661	74,016	11,515	159,370
September	2,277	40,911	30,292	72,231	9,360	155,071
October	2,011	37,011	30,873	64,669	10,694	145,258
November	1,851	34,091	25,753	50,577	9,175	121,447
December	1,923	33,458	26,239	57,105	8,873	127,598
Total	24,811	423,757	379,945	825,414	121,281	1,775,208
Percentage of total	1.4	23.9	21.4	46.5	6.8	100

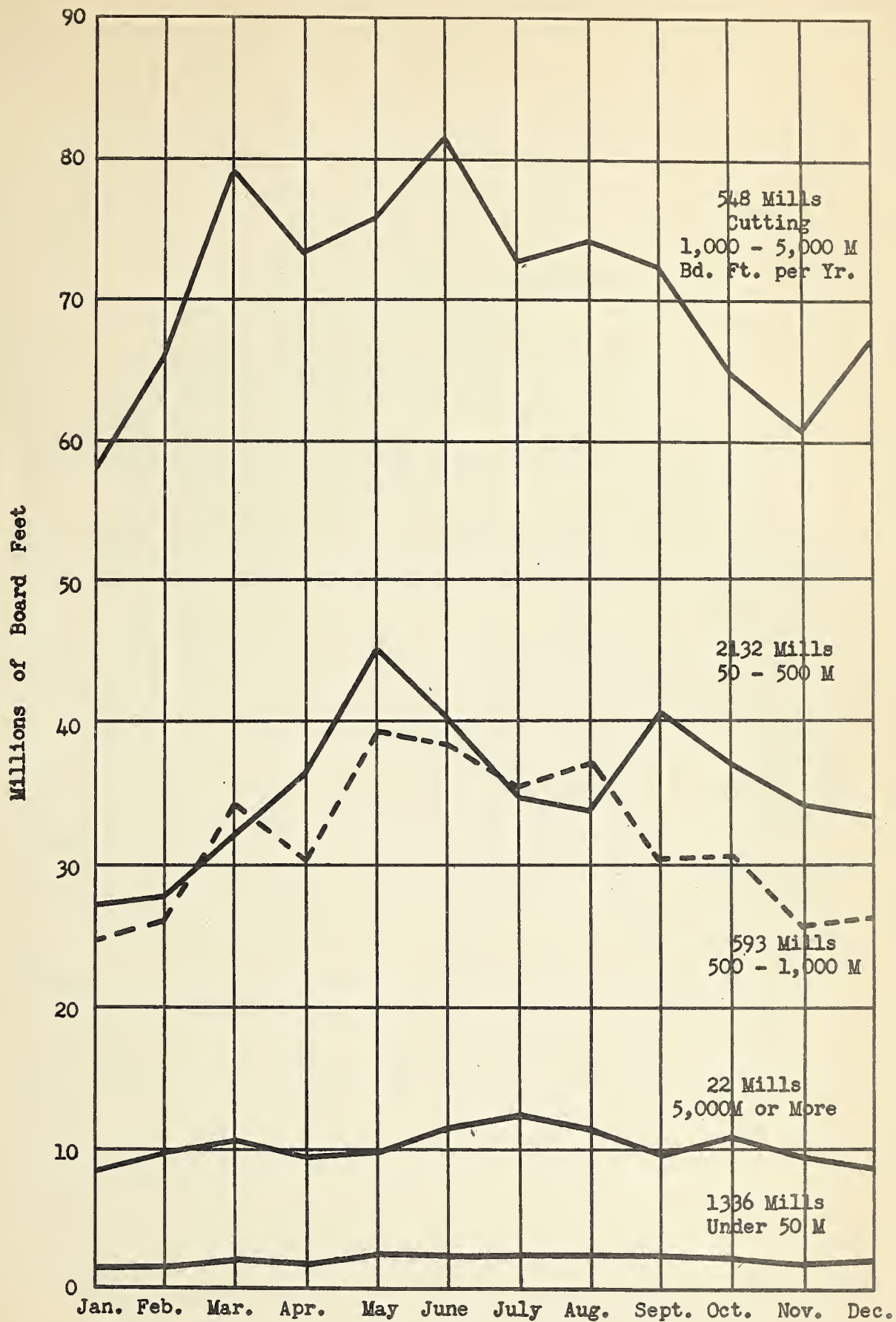


Figure 3. Monthly Lumber Production Trends by Mill Classes Northeastern Region - 1943

Table 5. Number of Sawmills

State	Idle mills	Sawmills by production classes (M bd. ft. per year)						Total active mills
		1 to 49	50 to 499	500 to 999	1000 to 4999	5000 up	Un- class- ified	
		Number of sawmills						
Connecticut	75	47	44	8	4			103
Maine	98	54	207	73	124	5		463
Massachusetts	64	86	121	33	38		2	280
New Hampshire	62	44	109	59	136	4		352
Rhode Island	11	11	10				2	23
Vermont	61	40	136	66	62			304
Total New England ^{1/}	371	282	627	239	364	9	4	1,525
Delaware	29	36	49	8	8			101
Maryland	160	223	240	55	21	2		541
New Jersey	28	50	41	12	7			110
New York	163	378	393	70	72	4		917
Pennsylvania	239	377	707	188	78	4		1,354
Total Middle Atlantic ^{2/}	619	1,064	1,430	333	186	10		3,023
Total Northeastern States	990	1,346	2,057	572	550	19	4	4,548

^{1/} New England figures represent status of mills at the end of 1943.

^{2/} Middle Atlantic States figures represent status at the end of 1942.

Table 6. Comparison of Number of Mills and
Lumber Production by Mill Classes

Mill class	Active sawmills		Lumber production 1943	
<u>M bd. ft. per year</u>	<u>Number</u>	<u>Percent</u>	<u>M bd. ft.</u>	<u>Percent</u>
1-49	1,350	29.7	24,811	1.4
50-499	2,057	45.2	423,757	23.9
500-999	572	12.6	379,945	21.4
1000-4999	550	12.1	825,414	46.5
5000 up	19	.4	121,281	6.8
Total	4,548	100.0	1,775,208	100.0

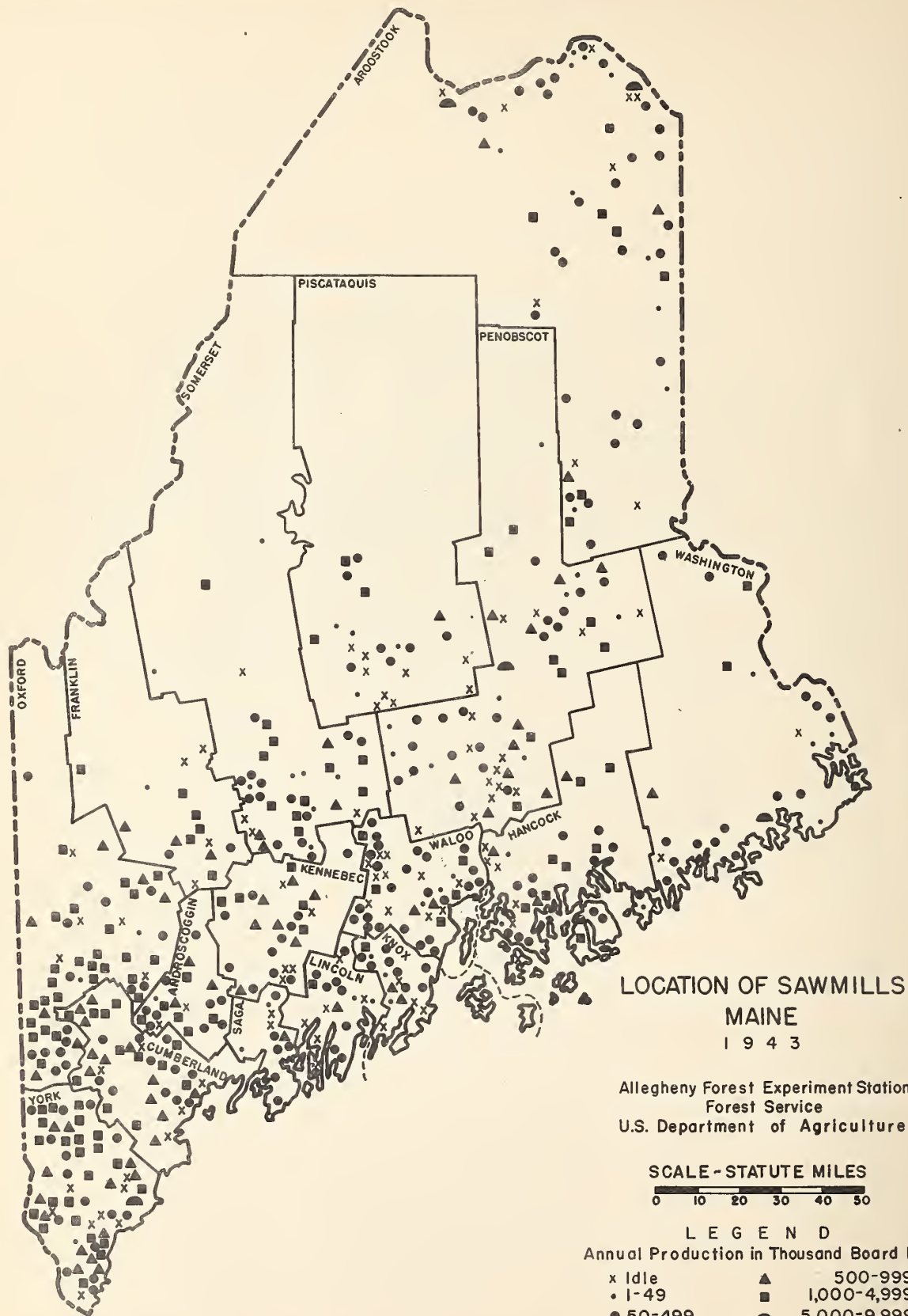


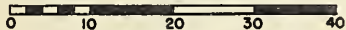
Figure 4
-14-

LOCATION OF SAWMILLS NEW HAMPSHIRE

1943

Allegheny Forest Experiment Station
Forest Service
U.S. Department of Agriculture

SCALE - STATUTE MILES



LEGEND

Annual Production in Thousand Board Feet

- | | | | |
|---|--------|---|-------------|
| x | Idle | ▲ | 500-999 |
| • | 1-49 | ■ | 1,000-4,999 |
| ● | 50-499 | ◐ | 5,000-9,999 |

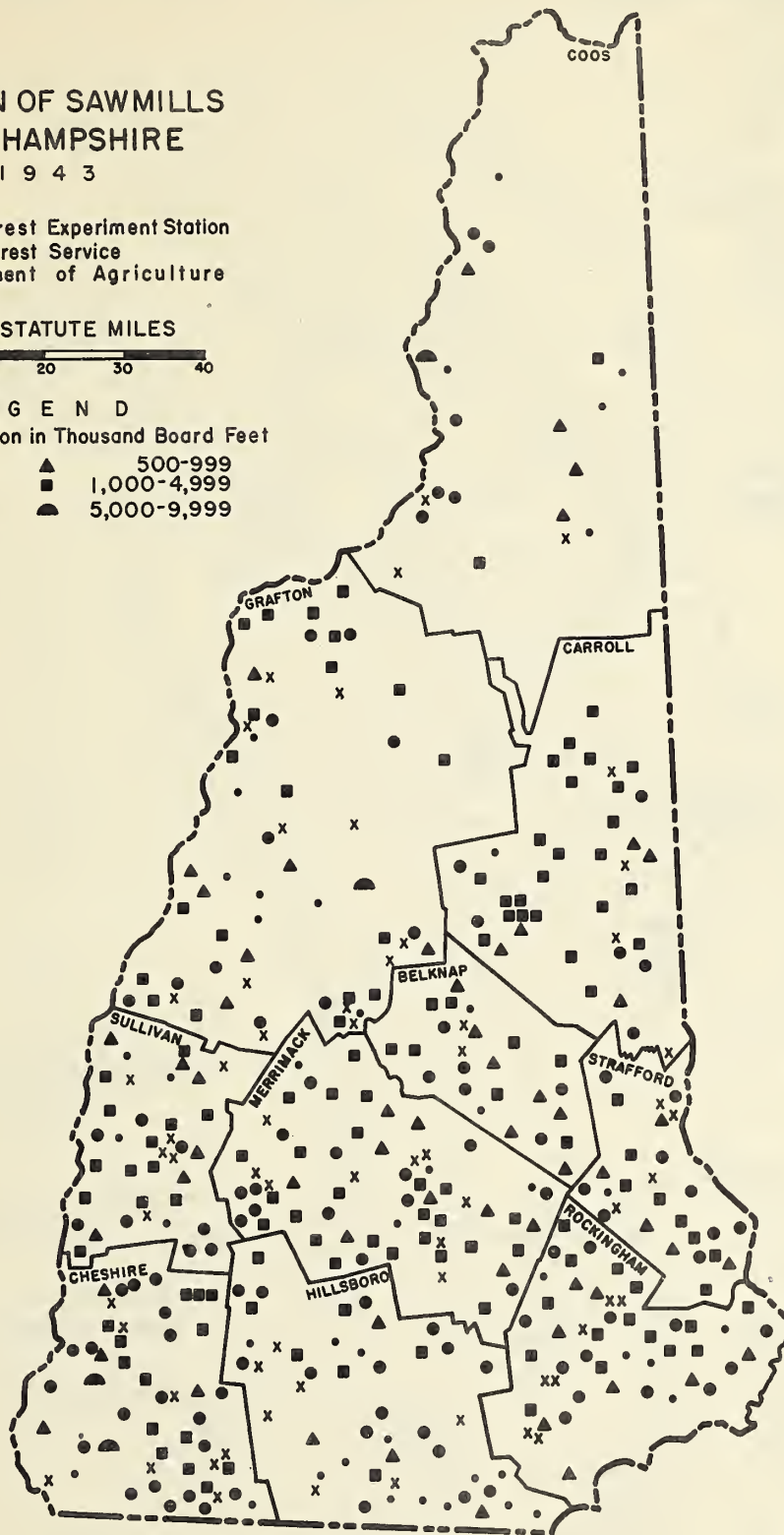


Figure 5
-15-

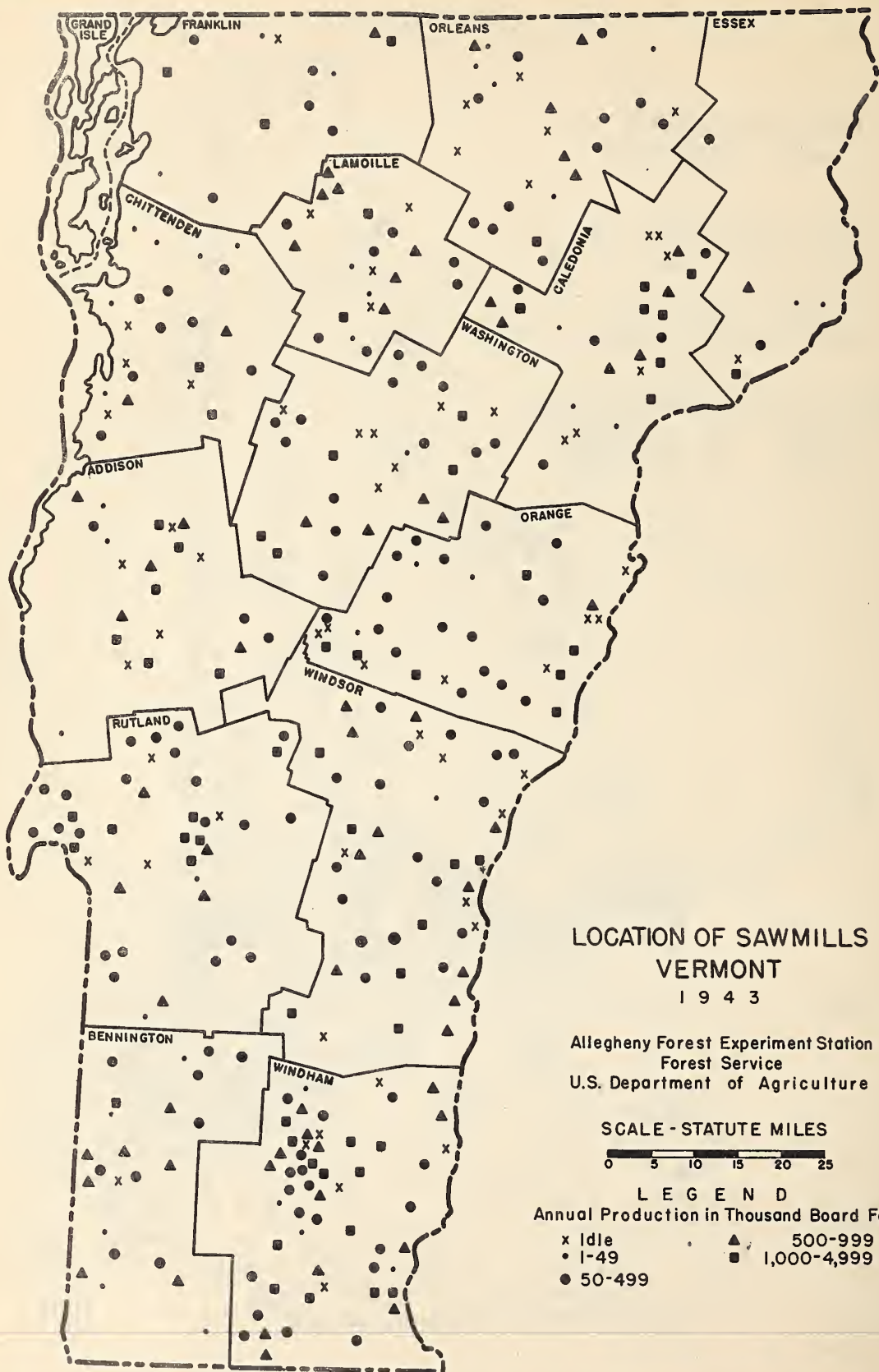


Figure 6
-16-

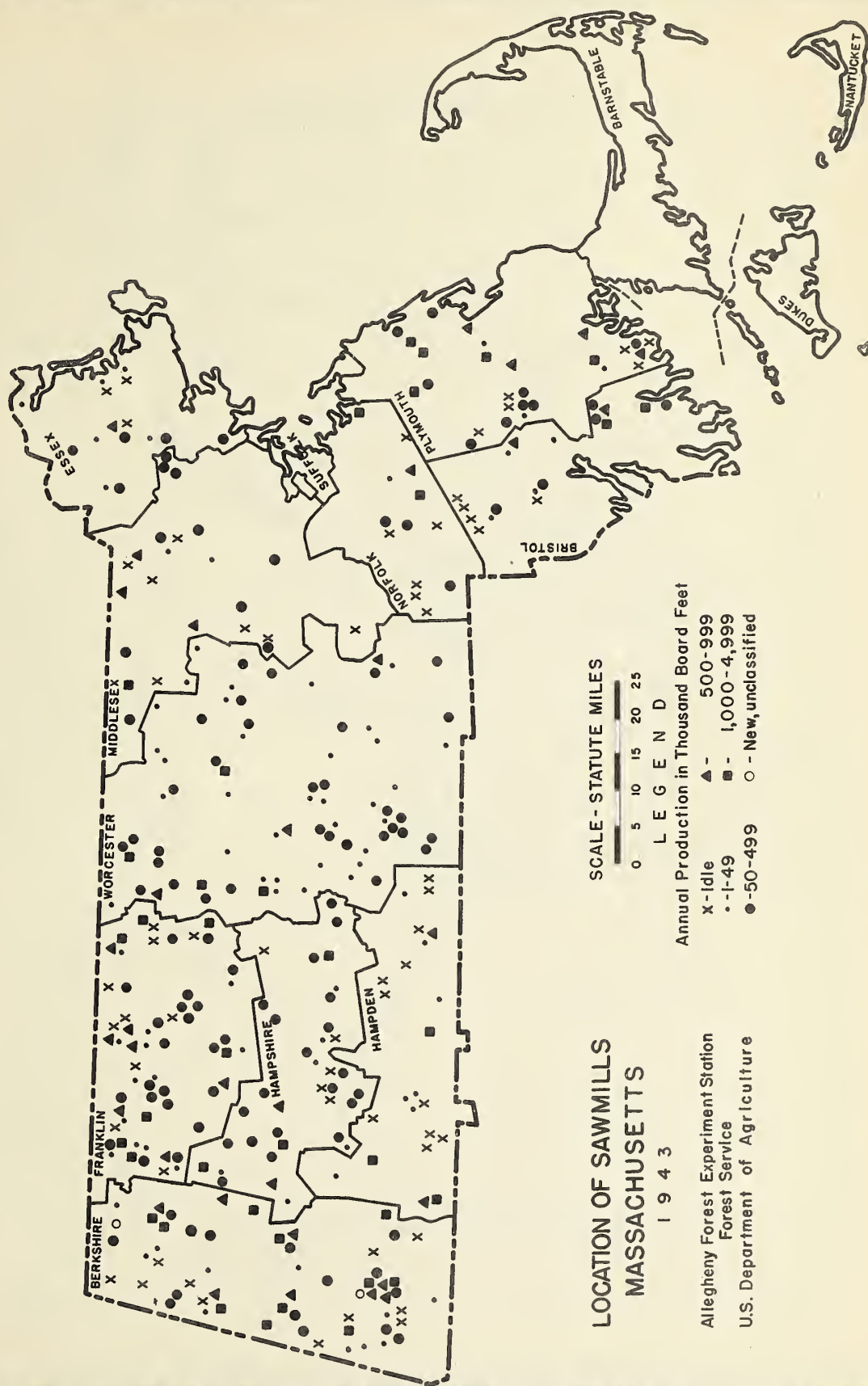


Figure 7

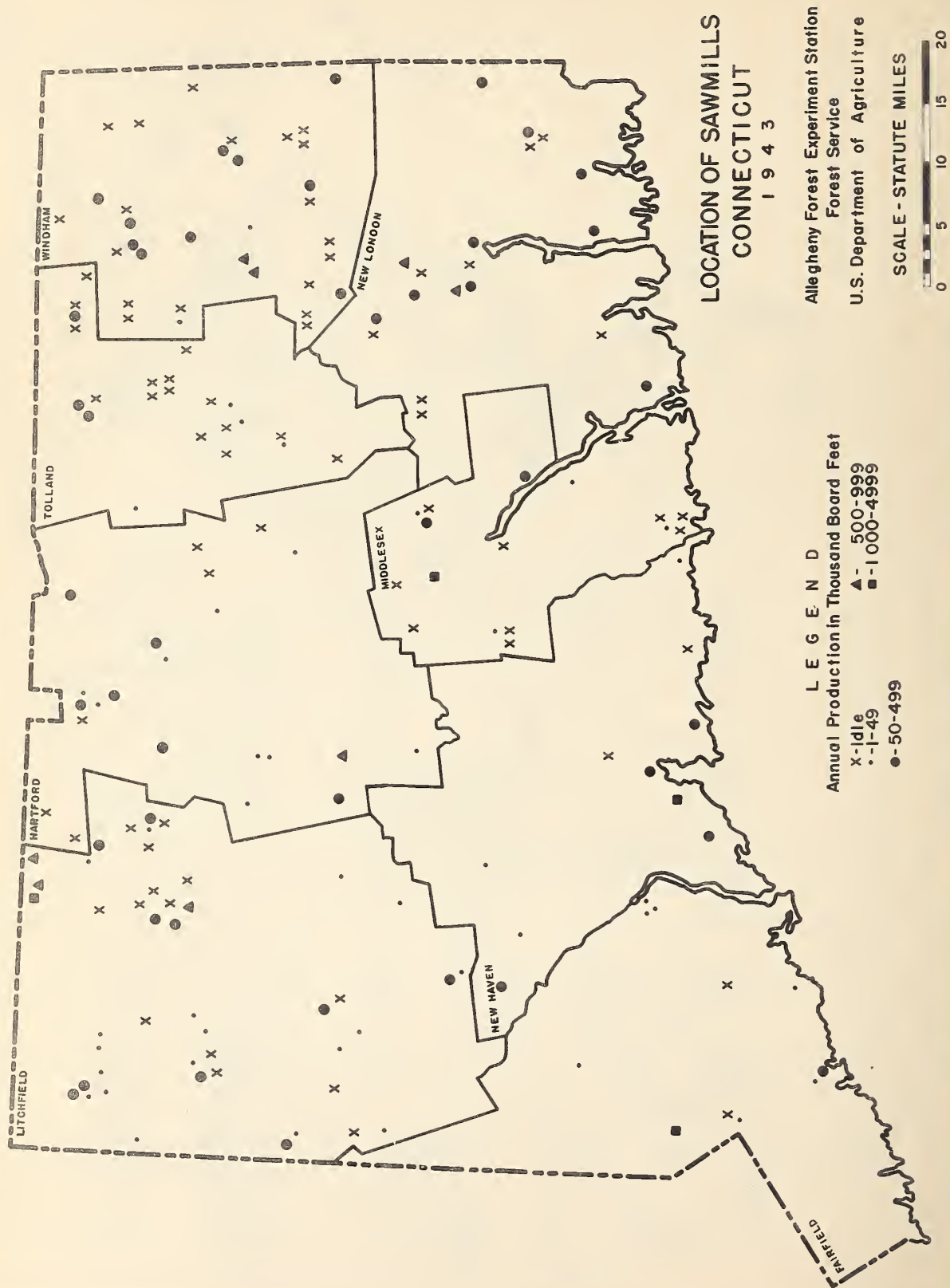


Figure 8

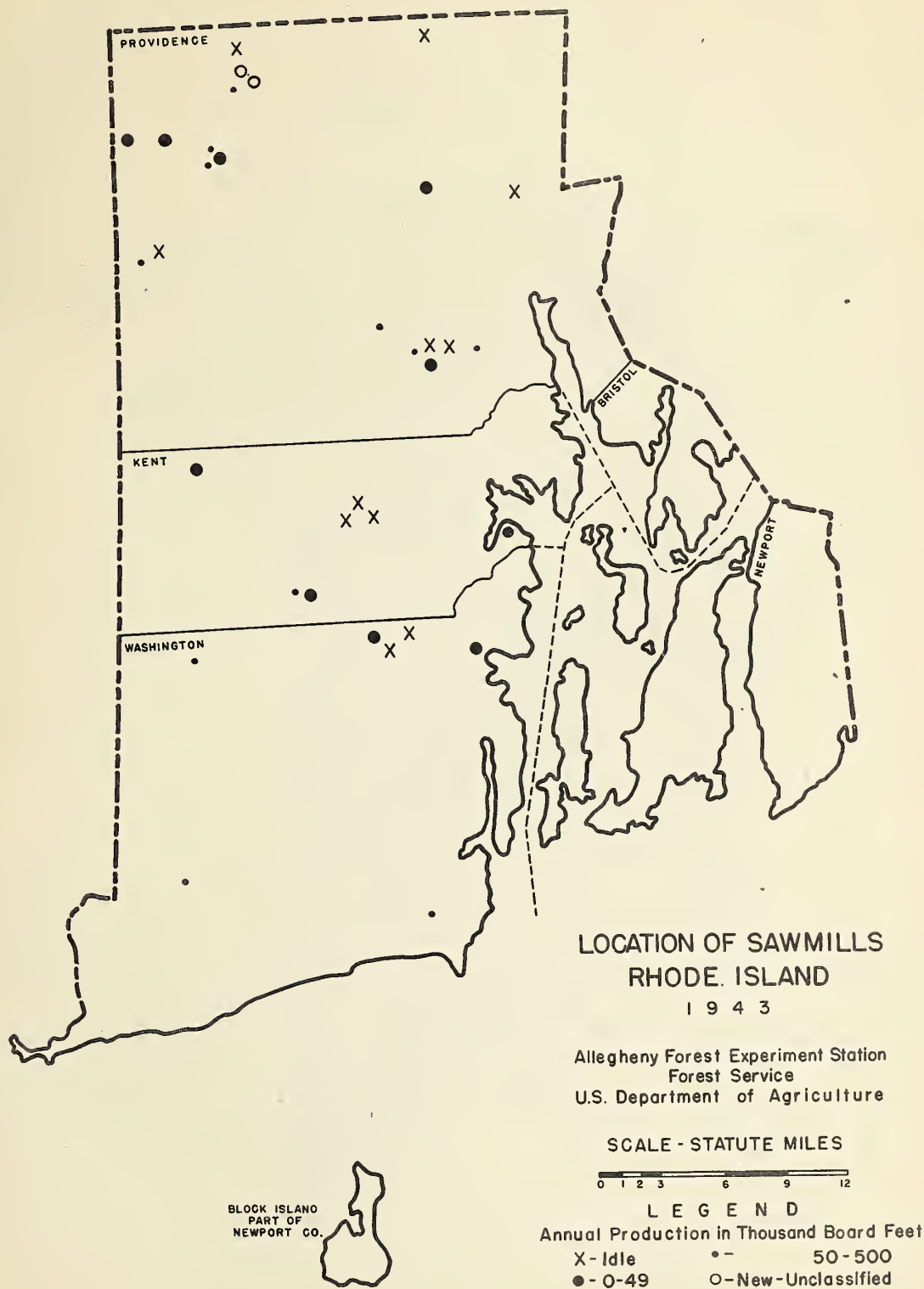


Figure 9
-19-

LOCATION OF SAWMILLS

NEW YORK

1942

Allegheny Forest Experiment Station
Forest Service
U.S. Department of Agriculture

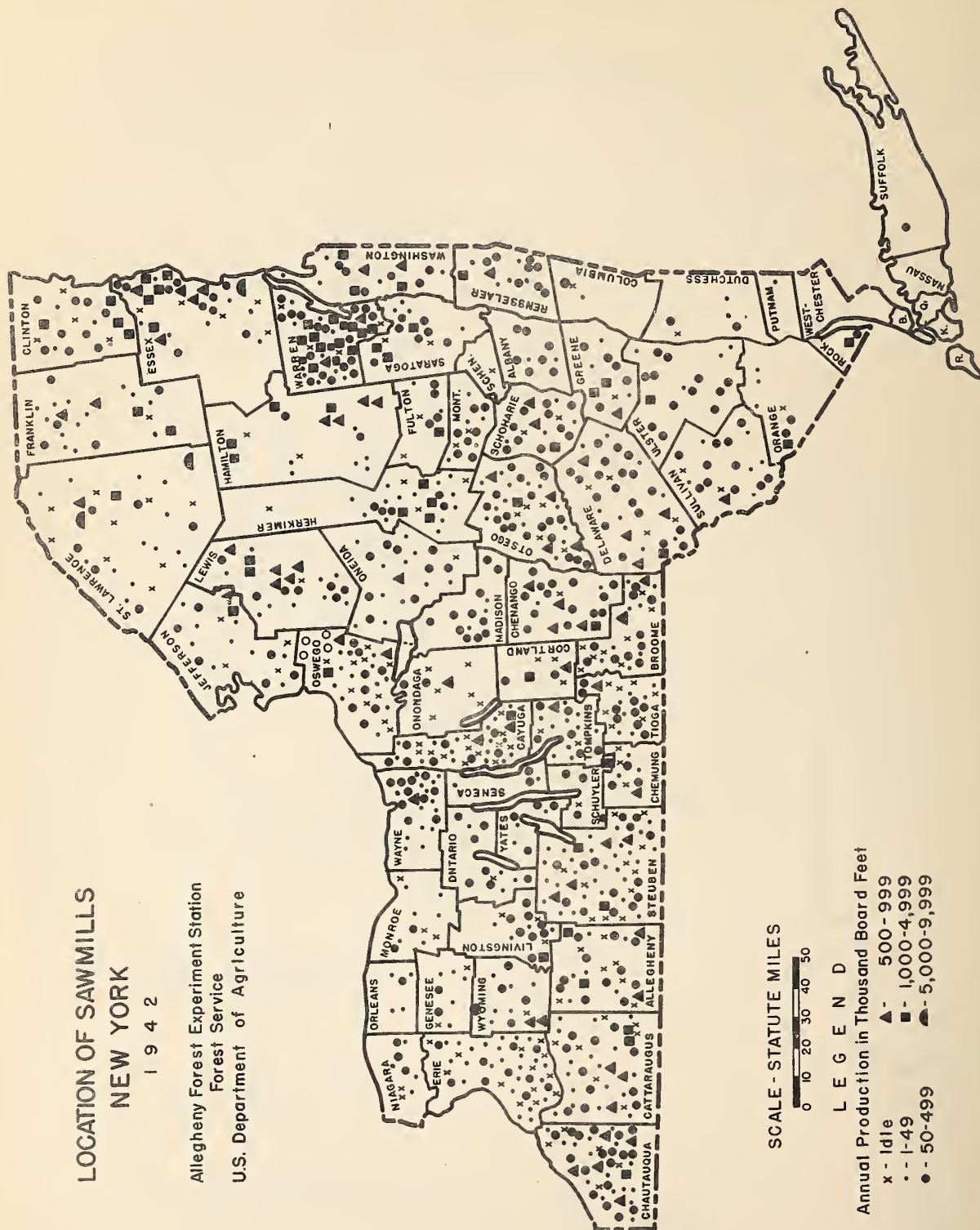
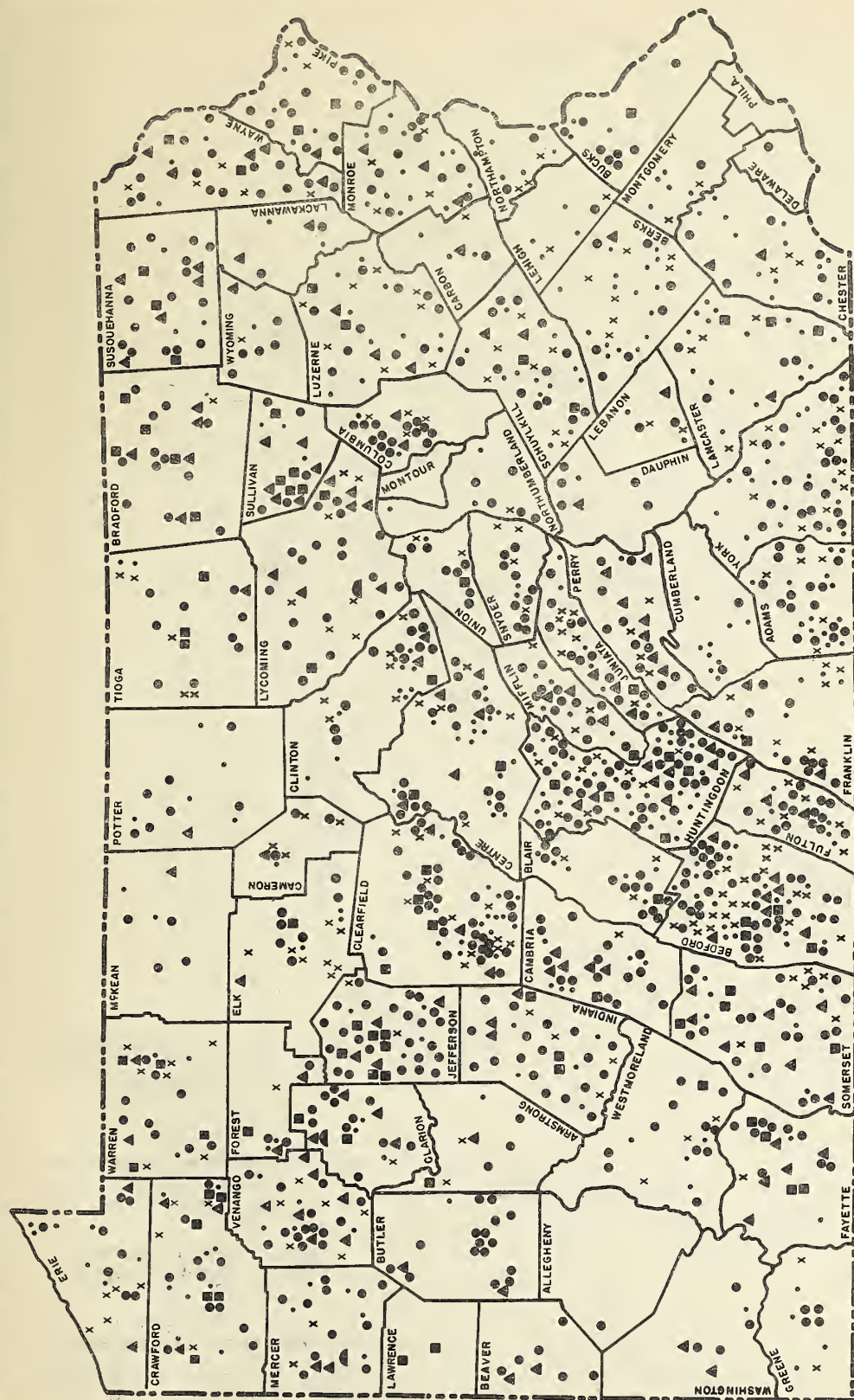


Figure 10



SCALE - STATUTE MILES
0 10 20 30 40 50

LEGEND
Annual Production in Thousand Board Feet
x Idle
• 1-49
△ 500-999
■ 1,000-4,999
◆ 5,000-9,999

LOCATION OF SAWMILLS PENNSYLVANIA

1942

Allegheny Forest Experiment Station
Forest Service
U.S. Department of Agriculture

Figure 11

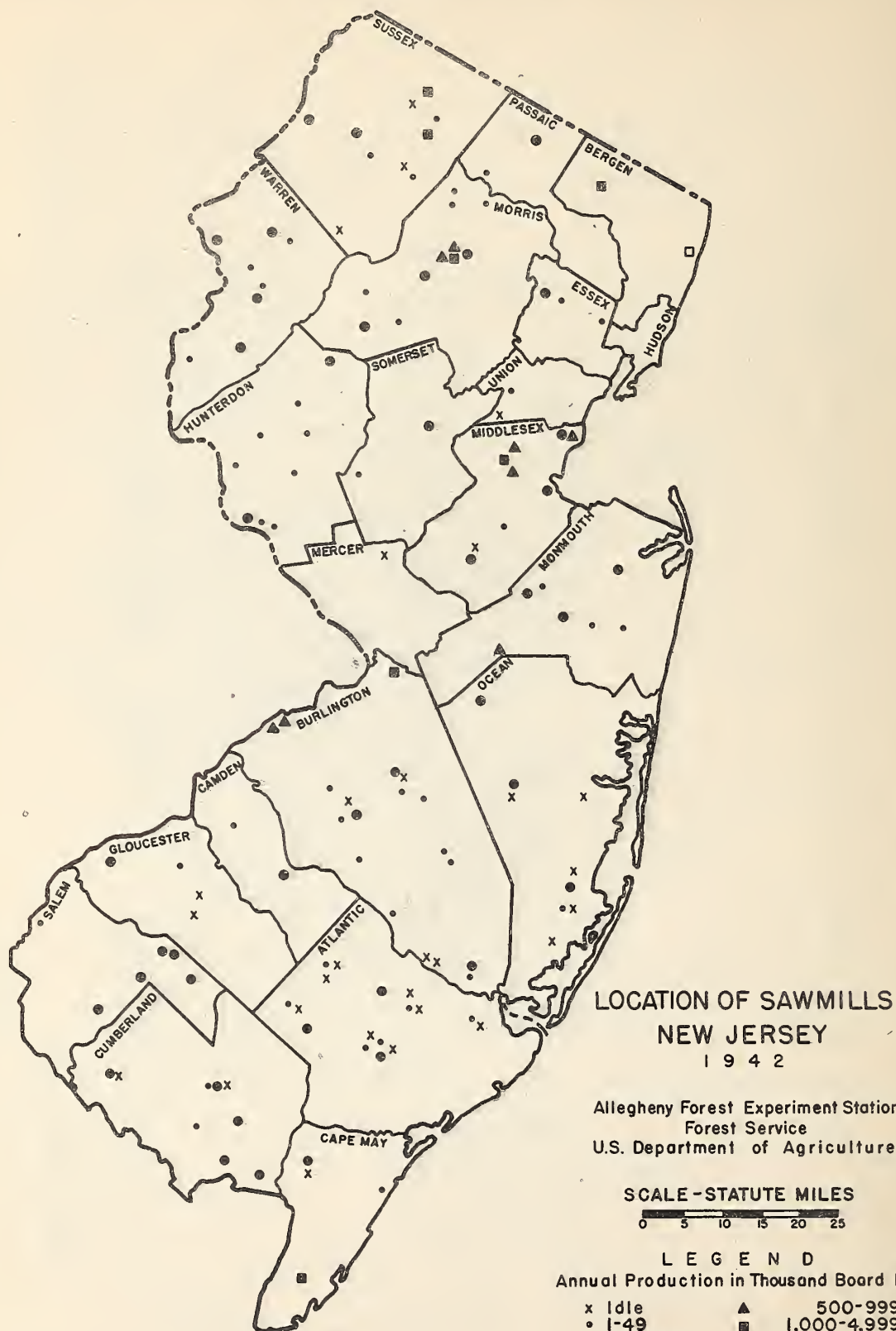


Figure 12
-22-

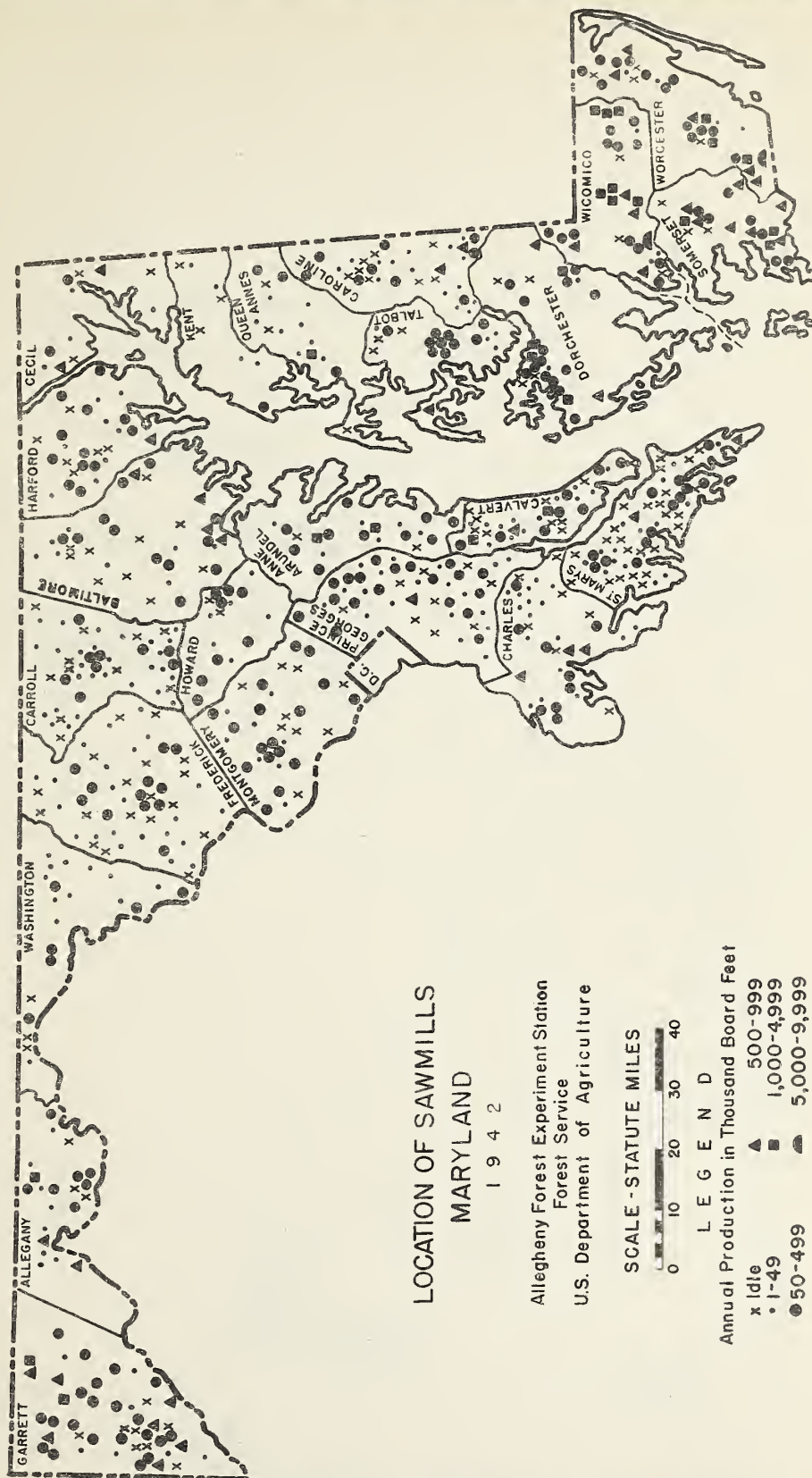
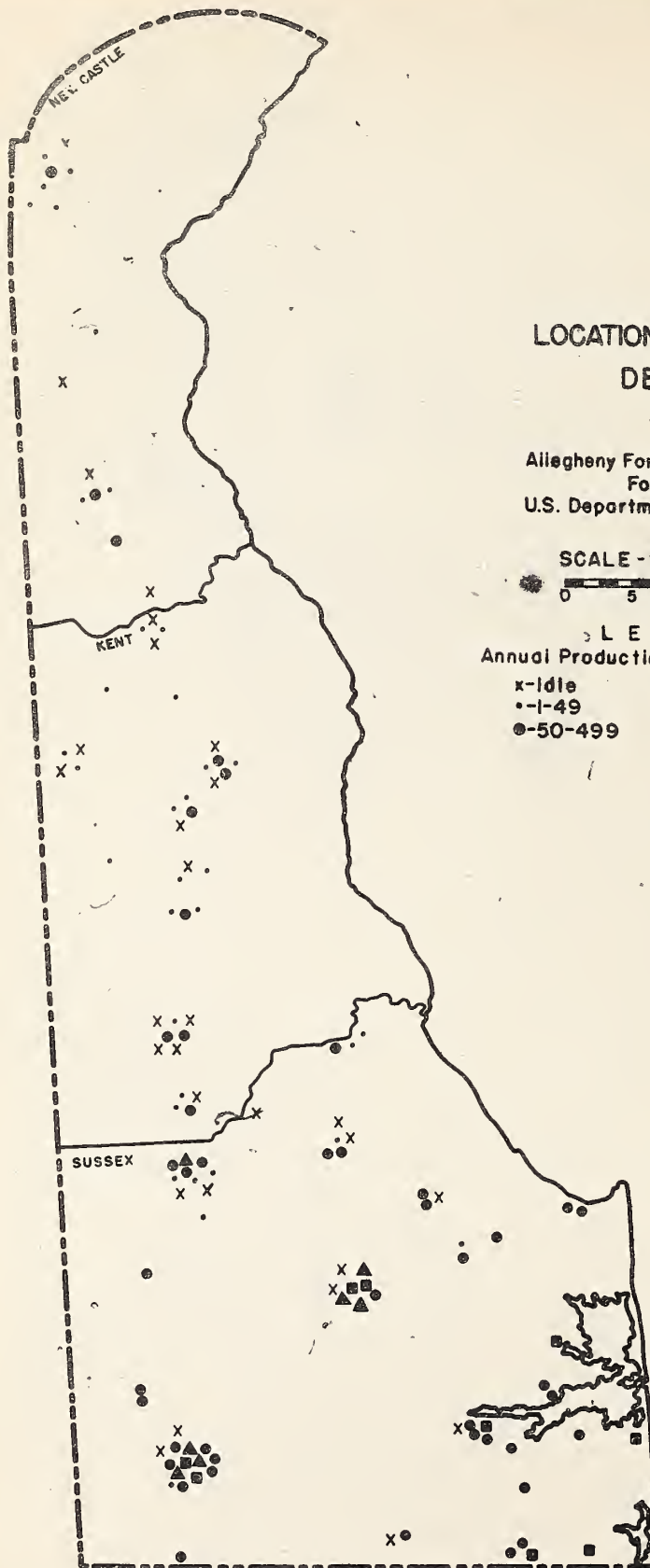


Figure 13

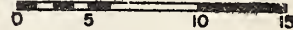


LOCATION OF SAWMILLS DELAWARE

1942

Allegheny Forest Experiment Station
Forest Service
U.S. Department of Agriculture

SCALE - STATUTE MILES



LEGEND

Annual Production in Thousand Board Feet

- | | |
|------------|-----------------|
| x - Idle | ▲ - 500-999 |
| • - 1-49 | ■ - 1,000-4,999 |
| ● - 50-499 | |

Figure 14

